

7. (Currently Amended) The method of claim 6 1, wherein said neurotrophic factor has been modified to increase its ability to be transported across the blood-retinal barrier.

8. (Original) The method of claim 7 wherein said modification comprises increasing the lipophilicity of the factor.

9. (Original) The method of claim 7 wherein said modification comprises glycosylation of the factor.

10. (Original) The method of claim 7 wherein said modification comprises increasing the net positive charge on said factor.

11. (Original) The method of claim 6 wherein said systemic delivery is by an oral route.

12. (Original) The method of claim 7 wherein said systemic delivery is by subcutaneous, intravenous or intramuscular injection.

13.-19 (Canceled)

20. (Currently Amended) A method of reducing degeneration of a photoreceptor retinal neurons in a mammal having a pathological condition wherein retinal degeneration occurs, comprising administering to said mammal a dose of a neurotrophic factor effective to reduce degeneration of a photoreceptor retinal neurons, wherein said administration is intraocular or systemic, wherein said factor is selected from brain derived neurotrophic factor (BDNF), ciliary neurotrophic factor (CNTF), neurotrophin-3 (NT-3), acidic fibroblast growth factor (aFGF), basic fibroblast growth factor (bFGF), interleukin-1 beta (IL-1 β), tumor necrosis factor-alpha, and insulin-like growth factor-2, or an active fragment thereof; and wherein degeneration of a photoreceptor retinal neurons is reduced.

21. (Original) The method of claim 20 wherein said pathological condition is retinal detachment, age-related or other maculopathies, photic retinopathies, surgery-induced retinopathies (either mechanically or light-induced), toxic retinopathies, diabetic retinopathies, retinopathy of prematurity, viral retinopathies such as CMV or HIV retinopathy related to AIDS; uveitis; ischemic

retinopathies due to venous or arterial occlusion or other vascular disorder, retinopathies due to trauma or penetrating lesions of the eye, peripheral vitreoretinopathy or inherited retinal degenerations.

22. (Previously presented) The method of claim 20 wherein said neurotrophic factor is brain derived neurotrophic factor, ciliary neurotrophic factor, neurotrophin-3 or a combination thereof.

23. (Canceled)

24. (Original) The method of claim 20 wherein said administration is intraocular.

25. (Original) The method of claim 24 wherein said administration is into the vitreous or into the subretinal (interphotoreceptor) space.

26. (Currently Amended) The method of claim 42, 20 wherein said administration is by systemic delivery.

27. (Original) The method of claim 26 wherein said systemic delivery is by an oral route.

28. (Original) The method of claim 27 wherein said systemic delivery is by subcutaneous, intravenous or intramuscular injection.

29.-39. (Canceled)

40. (Previously presented) The method of claim 1, wherein said neurotrophic factor is ciliary neurotrophic factor, or an active fragment thereof.

41. (Canceled)

42. (New) The method of claim 20, wherein said neurotrophic factor has been modified to increase its ability to be transported across the blood-retinal barrier.

43. (New) The method of claim 42, wherein said modification comprises increasing the

lipophilicity of the factor.

44. (New) The method of claim 42, wherein said modification comprises glycosylation of the factor.

45. (New) The method of claim 42, wherein said modification comprises increasing the net positive charge on said factor.